IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A hologram recording material comprising:

a metal oxide matrix; and

a photopolymerizable compound,

wherein the metal oxide matrix is formed by hydrolysis and polymerization reaction of a metal alkoxide compound, and said metal alkoxide compound includes

a metal alkoxide compound ~~said metal oxide matrix~~ having a halogen-containing organic group represented by the following general formula (1):

$(R_H)mM(OR)n$ (1)

wherein R_H represents a halogen-containing organic group,

R represents an alkyl group,

M represents a metal atom selected from the group consisting of Si, Al, Ti, Zr, Zn, In and Sn,

m represents 1 or 2, and

m+n represents the valence of the metal atom M; and

a metal alkoxide compound having no halogen-containing organic group represented by the following general formula (2):

$(R_1)mM(OR_2)n$ (2)

wherein R_1 represents an alkyl group or an aryl group,

R_2 represents an alkyl group,

M represents a metal atom selected from the group consisting of Si, Al, Ti, Zr, Zn, In and Sn,

m represents 0, 1 or 2, and

m+n represents the valence of the metal atom M.

2. (original) The hologram recording material according to claim 1, wherein said halogen-containing organic group is a halogenated hydrocarbon group.

3. (canceled)

4. (original) The hologram recording material according to claim 1, wherein the metal oxide matrix is made mainly of an oxide of silicon.

5. (original) The hologram recording material according to claim 1, wherein said photopolymerizable compound has an aromatic ring.

6. (original) The hologram recording material according to claim 1, further comprising a photopolymerization initiator.

7. (currently amended) A process for producing a hologram recording material, the process comprising:

hydrolyzing a metal alkoxide compound which includes a metal alkoxide compound having a halogen-containing organic group represented by the following general formula (1):

$(R_H)mM(OR)n$ (1)

wherein R_H represents a halogen-containing organic group,

R represents an alkyl group,

M represents a metal atom selected from the group consisting of Si, Al, Ti, Zr, Zn, In and Sn,

m represents 1 or 2, and

m+n represents the valence of the metal atom M, and

a metal alkoxide compound having no halogen-containing organic group represented by the following general formula (2):

$(R_1)mM(OR_2)n$ (2)

wherein R_1 represents an alkyl group or an aryl group,

R_2 represents an alkyl group,

M represents a metal atom selected from the group consisting of Si, Al, Ti, Zr, Zn, In and Sn,

m represents 0, 1 or 2, and

m+n represents the valence of the metal atom M

thereby yielding a precursor of a metal oxide matrix;

mixing a photopolymerizable compound before or after said hydrolysis; and

curing the metal oxide matrix precursor mixed with the photopolymerizable compound, thereby forming a metal oxide matrix.

8. (previously presented) A hologram recording medium having the hologram recording material according to claim 1.

Claim 9. (canceled)

Claim 10. (previously presented) The hologram recording material of claim 1, wherein said halogen-containing organic group is at least one group selected from the group consisting of chloromethyl, dichloromethyl, chloropropyl, chlorobutyl, 3-chlorobutyl and 1,2-dichloroethyl.

Claim 11. (previously presented) The hologram recording material of claim 1, wherein said halogen-containing organic group is at least one group selected from the group consisting of bromomethyl, bromopropyl, iodopropyl and chlorobromomethyl.

Claim 12. (previously presented) The hologram recording material of claim 1, which is in the form of a film of a thickness of 100 μm or more.

Claim 13. (previously presented) The hologram recording material of claim 1, which is in the form of a film of a thickness of 100 μm to 5 mm.

Claim 14. (previously presented) The hologram recording material of claim 1, comprising 10 to 1000 wt. % of said photopolymerizable compound relative to a weight of said metal oxide matrix.

Claim 15. (previously presented) The hologram recording material of claim 1, comprising 50 to 500 wt. % of said photopolymerizable compound relative to a weight of said metal oxide matrix.

16. (previously presented) The hologram recording material of claim 1, wherein said metal oxide matrix is compatible with said photopolymerizable compound in the sol-state and in when cured.